searcharch
AIRPORT STYLE METAL DETECTORS

Searcharch 1000
USER'S MANUAL

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IMPORTANT:

If you have received a consignment of more than one detector please insure that the Side Panels are matched to the correct Header Assembly. Serial numbers are written on the packing cases and on identification labels attached to top Side Panels and Header

WTMD SPECIFICATION

Dimensions:
Archway inside- 760mm Wide 2200mm High 580mm Deep
Overall Outside- 900mm Wide 2210mm High 580mm Deep
Net Weight: 77KG
Control: Touch pad
Operating Temperatures
-4° F (-20° C) to + 158° F (70° C); Humidity: To 95% non-condensing
Power
Switch power supply 100 to 240 VAC, 50 or 60 Hertz, 5 watts;

What is in the packing

- Panel "A"
- Panel "B"
- Detection Unit (Head)
- Crosspiece
- Four1/ Screws

- Owners Manual
- Warranty card

Option Accessories:

- Moving trolley
- 3hrs back up battery
- Article transportation desk

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General Description

Electronic of Searcharch and Electromagnetic:
The Searcharch 1000 uses an embedded microprocessor and features true multiple-zone performance. The archway passage consists of six separate and distinct detection zones. It combines unique multiple independent sensors with high speed digital signal processing. A built in display panel provides instant visual identification of the location of a suspected weapon, or weapons, in the archway area.

Header Assembly, Control Panel and Displays
The Control Panel at the front of the Header Assembly contains an on/off Key switch, a built in Alarm Display Panel, an L.C.D. Display Panel that shows system operating parameters and a Keypad for operating parameter data entry. The built in Alarm Display Panel depicts the area within the archway opening. It has an L.E.D. array showing the six separate detection zones. Searcharch 1000 have Extra size LED array display on the frame to pinpoint the six zone detect status. Searcharch 1000 shows on the over head. A twelve segment bar graph shows an object's signal strength in real-time. Also included are a red Alarm event L.E.D, a green Ready/Wait L.E.D. All electronic of Searcharch 1000 are housed in the aluminum head Assembly.

System Throughput:
The WTMD accommodates a wide range of Searcharch 1000 transit speed of Searcharch 1000. Rapid automatic reset maximizes the system throughput rate to over fifty passes per minute. Searcharch 1000s speed range provides consistent detection over a wide range of object transit speed.

Interference Immunity:
Searcharch 1000 advanced design provides excellent interference rejection. Outside interference from sources such as computers, fluorescent lights, etc., have minimal impact, enabling the unit to operate in environments that render many detectors inoperable.

Uniform Detection
The field of detection is uniform from top-to-bottom with no hot spots or dead spots. In situations where large amounts of steel re-bar exist in a support floor and cause a drop in detection at ankle height; the loss can be compensated by adjusting the sensitivity of the floor level zone. The sensitivity of all six zones can be adjusted independently. They allow uniform detection to be maintained in all regions of the detector. Horizontal Axis Gain Control compensates for detection losses caused by external metal in walls or furniture. It adjusts the sensitivity horizontally across each zone.

Multiple Operating Frequencies:
The Searcharch 1000 provides four user selectable operating frequencies.They allow simultaneous operation of multiple units without interconnecting slaving cables.

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Unique Target Pinpoint

Searcharch 1000 walkthrought metal detectors provides superior target detection with excellent metal discrimination capabilities.

DPII targets multi objects on the left, center or right side of the body from head to toe within 18 distinct areas using a unique array of Light Emitting Diodes (LED's) located on the exit side of each panel. Independent zone by zone calibration capability insures optimal archway field uniformity, regardless of installation challenges.

Improved Sensitivity

An improved multi-coil design allows programming for the detection of the sensitivity smallest of metallic targets regardless of shape and orientation.

Security Protection

All settings are secured with a key lock and 2 levels of user access. Unique access codes may be assigned for up to multi users. Further security is accomplished with a cabinet lock which prevents unauthorized access to cables, connectors and circuit board of Searcharch 1000 .

Controls Display

Searcharch 1000 utilizes backlit Liquid Crystal Displays (LCD's) and LED bar Displays graphs for continuous on-line operating status and self-diagnostic reporting. All controls and settings are simplified with menu selections and touch-pad controls.

Optional Accessories Optional accessories include a Battery Back-Up Module for emergency or remote use, a wheel set assembly for easy portability.

Memory:

Searcharch 1000 utilizes an embedded microprocessor that analyzes data generated by 12/6 detection sensors. Whenever adjustments are made to any operating parameter they are automatically retained in memory.
When detector is powered down the previously entered operating parameters are retained in memory.

System Security:

Searcharch is pass-code protected and has a locking Key switch that connects the AC power. A four digit pass code must be entered before operating parameters can be accessed and changed.

Construction:

Searcharch 1000 is coated in a durable scratch resistant two part epoxy finish. The Side Panels and Header Assembly are sturdily constructed for stability and durability.

System Diagnostic of Searcharch 1000:

Searcharch 1000 has self-diagnostic test routines. When the unit is powered up it automatically self-tests and calibrates itself to the surrounding environment. Periodic calibration is not needed.

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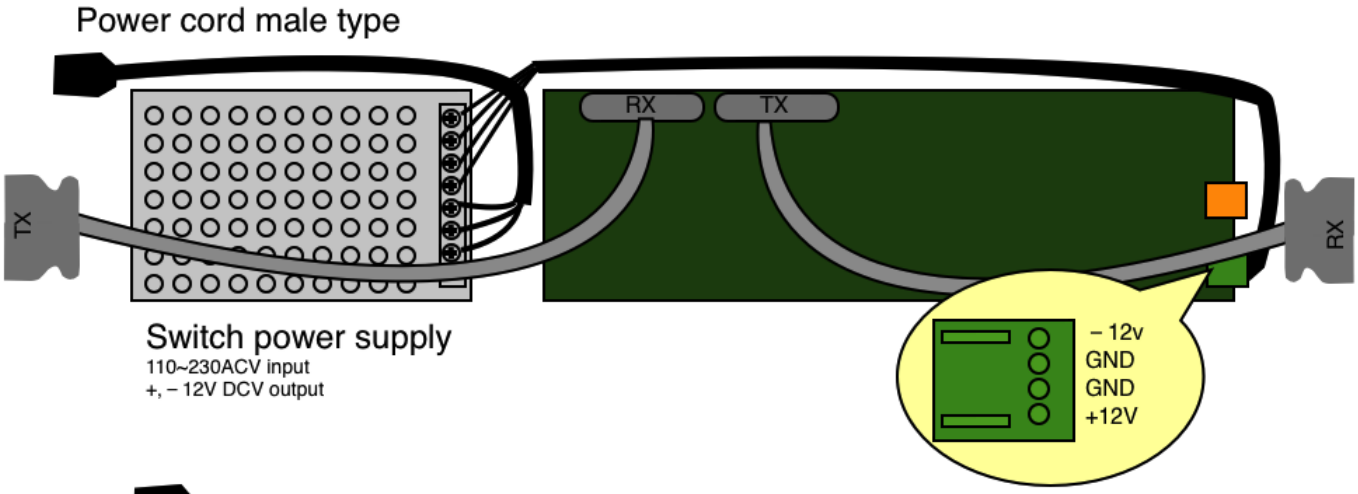
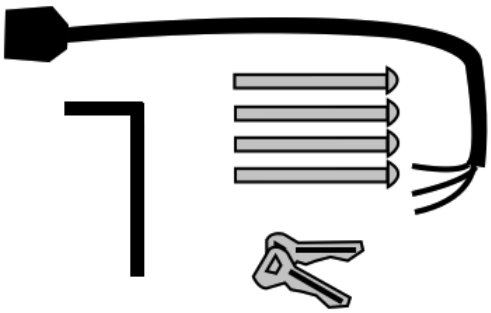
Assemble the control box

Head (Control pad side)





Power cord female type (For up coming power supply connection)
Screwers (4 PCS)
Screwer driver (1PC)
Keys for control box

ASSEMBLING

1 Place any one of packing foam on floor as shown in Figure .
2 Lay detection unit (with touch pad panel facing down) on packing insert.
3 Connect detection unit to panels A and B using four screws and finishing washers. Do not tighten!
4 Open the door of the detection unit.
Wire the control box as the figure shows above. Match the cable and connectors by the stickers mark such as TX/RX ect.
5 Use the four remaining screws to attach the crosspiece to the two panels as shown in Figure.
6 If optional stabilizer mounts are to be used, attach stabilizer plates to side panels. Do not remove adhesive protectors at this time.
7 Use two or more people to lift the detector to a vertical position and move to desired location.

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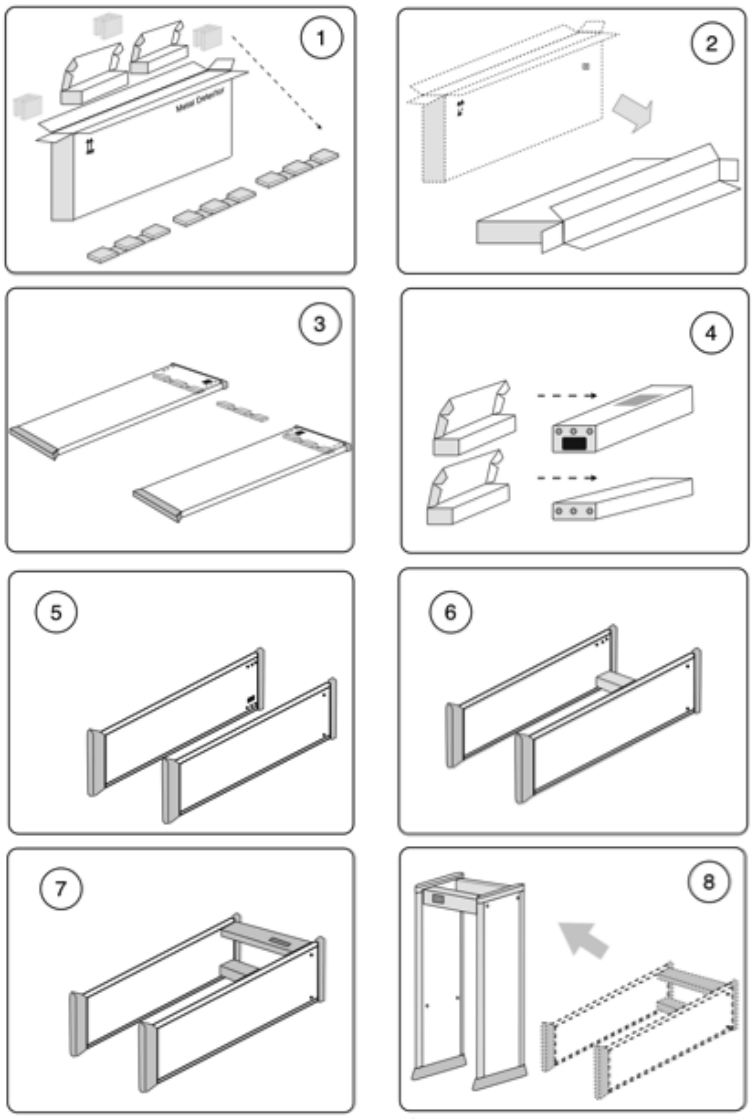
Assembling



Rise the detector

The cord head was tighten on the side of the feet to protect it from crashing during the installation.
Please insert the cord into the button of the panel after connected and tighten it again and rise up the detector.

STABILIZING
For proper stability, the Searcharch 1000 should be firmly secured to the ground. Anchor the unit to the floor, using the 1/4" mounting holes located at the base of each panel. Position the Searcharch 1000 in the desired location. Using the panels as guides, mark and drill holes, then secure the walk-through using the appropriate mounting devices. Tighten only to prevent rocking. DO NOT over-tighten!

PLACEMENT PROCEDURE
1. Place assembled unit in final position at checkpoint location.
2. Connect to power source.
3. Program / Calibrate unit.
4.Check for interference and troubleshoot.

CAUTION
For multiple Searcharch operation (units within 25' to 100' of each other depending on sensitivity setting), additional power requirements and installation adjustments are necessary to avoid crosstalk (interference) among units.

OPERATIONAL TESTING
Once the Searcharch 1000 is calibrated, a SELECTED TEST OBJECT can be used as a substitute for the forbidden object in subsequent routine verifications.
A SELECTED TEST OBJECT is an object similar in size, shape and material composition to the smallest forbidden target and is considered an acceptable means of verifying calibration.

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FUNCTIONAL TEST

A standard, functional test is essential in order to ensure that the Searcharch 1000 is always calibrated and functioning properly. The test should complement your overall security plan and be performed daily. Pass a SELECTED TEST OBJECT and / or other objects at varying locations and orientations within the archway. Note the number of repetitions that you need to trigger successful alarms.

Whoever performs the routine test must be free of metallic items, including shoes with steel toes or shanks prior to testing. A hand held metal detector can be used to confirm that the tester is “metal free”.

Remove the detector to other place by trolley set

Step on the front of the trolley to stop it and push the walk through metal detector on the centre by other end.

MULTIPLE WALK-THROUGH SITE INSTALLATION SETUP

The special 4 different crystal embodied design enable the user install up to 4 to 16PSearcharch 1000 detector closely. Each detector have an 4 channels frequency DIP under the crystal as picture shows.

Each detector must be free from interference from adjoining walk-through metal detectors. To ensure that there is no interference, observe the bar graph of one walk-through while switching the remaining walk-through(s) from OFF to OPERATE. If interference is indicated on the walk- through' bar graph when remaining unit(s) are in the operate mode, and no interference takes place with remaining units of f, crosstalk is occurring.

There are several ways to successfully install multiple walk - through' in close proximity with no crosstalk.

DIP switch on the power board

Door 1 Door 2 Door 3

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Factory Default Setting		
User Number	Access Level	Password
1	Administer (ADMIN)	1 2 3 4
2	Supervisor (SUPER)	0 0 0 0
3	ADMIN/SUPER (By user)	****

There are two access levels of security clearance (Supervisor and Administrator) for the detector.

Supervisor: This access level has the ability to view pass account number and alarm account numbers.
Administrator: This access level has the ability to view pass account number and alarm account numbers, modify the sensitivity setting ect.
For detail please compare the following chart.

	Function	Supervisor	Administrator
Power	Power (Self Testing)	●	●
Monitor	Passage account Alarm account	○	●
Preferences	Volume Alarm timmer	○	●
Sensitivity	Sub sensitivity Base sensitivity	○	●
	Preset sensitivity 1,2,M Initialize the default sensitivity	○	●
Special	**Power switch**	○	●

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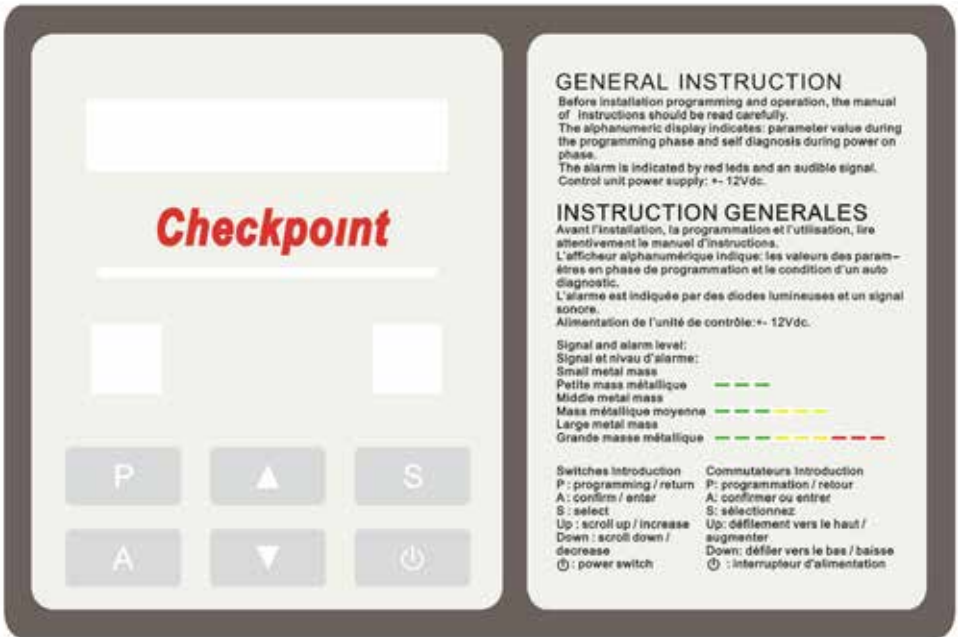
Touch-pad

LCD Screen

Ready / Alarm LED lamp
Sensitivity indicator

Touch-pad


Checkpoint
P
S
A
GENERAL INSTRUCTION
Before installation programming and operation, the manual of instructions should be read carefully.
The alphanumeric display indicates: parameter value during the programming phase and self diagnosis during power on phase.
The alarm is indicated by red leds and an audible signal.
Control unit power supply: +- 12Vdc.
INSTRUCTION GENERALES
Avant l'installation, la programmation et l'utilisation, lire attentivement le manuel d'instructions.
L'afficheur alphanumérique indique: les valeurs des paramètres en phase de programmation et le condition d'un auto diagnostic.
L'alarme est indiquée par des diodes lumineuses et un signal sonore.
Alimentation de l'unité de contrôle:+- 12Vdc.
Signal and alarm level:
Signal et nivau d'alarme:
Small metal mass
Petite mass métallique
Middle metal mass
Mass métallique moyenne
Large metal mass
Grande masse métallique
Switches Introduction
P : programming / return
A : confirm / enter
S : select
Up : scroll up / increase
Down : scroll down / decrease
⏻ : power switch
Commutateurs Introduction
P: programmation / retour
A: confirmer ou entrer
S: sélectionnez
Up: défilement vers le haut / augmenter
Down: défiler vers le bas / baisse
⏻ : interrupteur d'alimentation

Sambal	Function
Green square LED	Power on indicator
Red square LED	Alarm indicator
P	Programming / Return
A	Access / Confirm
S	Digit position switching
▲	Roll up / Increase one digit
▼	Roll down / Decrease one digit
Green Path	Power on/off Change to 1,2,M preset sensitivity fast button

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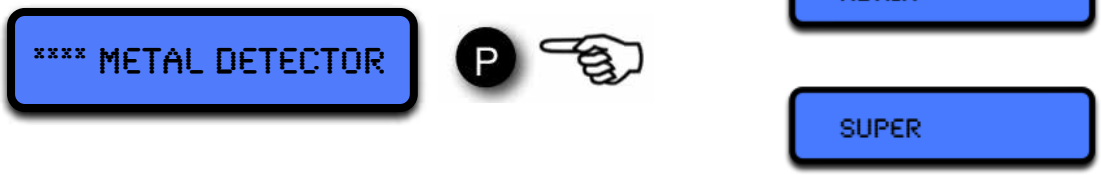
Note: Please keep the tiny remote control carefully

Power on

The first time you plug in the power cord to the socket the detector will power on automatically. The detector also can be controlled by the remote controller and touch-pad.

Press the Green button on the remote control or touch pad 4 seconSearcharch 1000 will turn it off. Press the Green button on the remote control or touch pad 4 seconSearcharch 1000 will turn it on again.

Self testing:
The detector will calibrate after turn the power on for 4 to 6 second. The signal LED display will stop blinking and the LCD display will show **** WALK THROUGH METAL DETECTOR ...



Enter the code. 0000 is the default Supervisor's code. 1234 is for Administrators. User can add or delete new code in the future steps.

User Up/Down to increase/decrease the digit and S button to select the digit position.

Note:
Every time the detector is turned on, a self-test occurs. To safeguard against non-critical failures, after unit is initially turned on, user should perform a manual self-test by pressing the self-test touch-pad again. If unit is in 24 hour, 7-day a week operation, a manual self-test should be conducted at least once every 24 hour period to check for non-critical failures.

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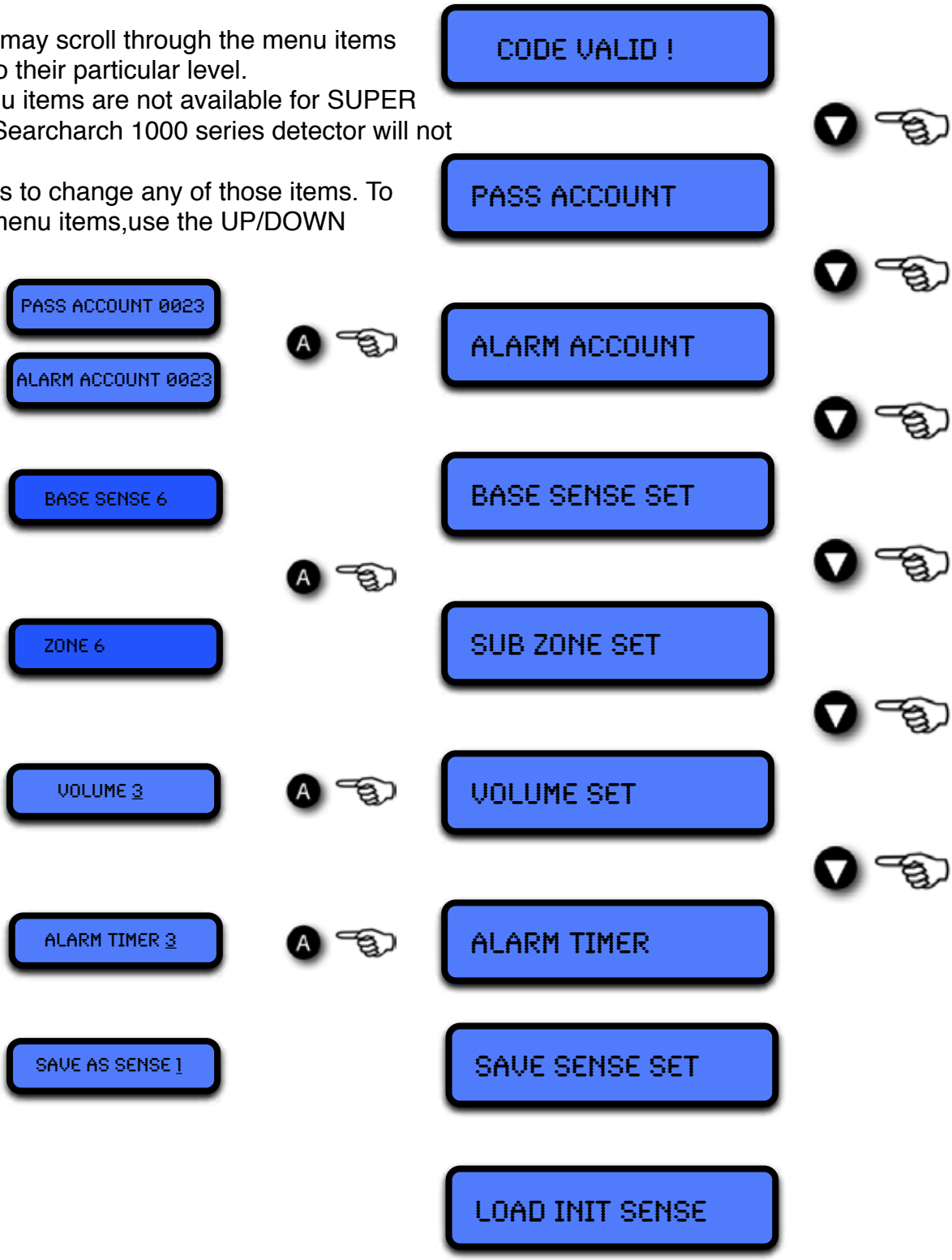
Main Menu Illustration

Each user may scroll through the menu items assigned to their particular level.
Some menu items are not available for SUPER user. The Searcharch 1000 series detector will not allow
Supervisors to change any of those items. To scroll the menu items,use the UP/DOWN touch-pad.



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PROGRAM
After enter the ADMIN program successfully certain information will appear on LCD.
If user is authorized to change the program, the user may scroll the menu of programs using the UP/DOWN touch-pad of Searcharch 1000 to find the new program. Stop scrolling when program desired appears on LCD. Press A for the next adjustment or P to resume normal operation.

Passage counter
The detector is embodied with 2 sets IR receiver and transmitter (RX/TX) to count passengers accurately and reduce the false alarm. The ADMIN and SUPER level user both be able to view the digit.
Press A when the LCD display PASS ACCOUNT. The digit will show 0023 ect four digit counting. 9999 is the limit.
The income will increase the digit and the outgoing will decrease the digit.

Alarm counter
The detector will record the alarm digit when the alarm is triggered on.
Multi-zone alarm will only be counted as one alarm.

BASE SENSITIVITY ("Sensitivity Setting " on the next page)
At higher sensitivity settings, smaller metal objects are detected. Conversely, at lower sensitivity settings, only larger metal objects are detected. Keep in mind that the sensitivity should be set high enough so that the smallest forbidden object (depending on your security demand of Searcharch 1000) can be detected.
BASE SENSE: < base sensitivity setting>, will appear on LCD stand by display.
If user is authorized to change the base sensitivity, the user may scroll from 0-99 using the UP / DOWN touch-pad Searcharch 1000 .

SPECIAL NOTE
A final decision on program and base sensitivity settings is the sole responsibility of the end user and must be determined by keeping the intent of the security application.
Press P for the next adjustment.

Eye level stand by/ stop indicator
There are two intense illuminated LED indicator on the light bars to indicate the detector condition and passing guiding. The Green one is indicate the detector is powered on. The red one indicate the next passenger should stop on the waiting lane. The indicators can not be turn off by programing.

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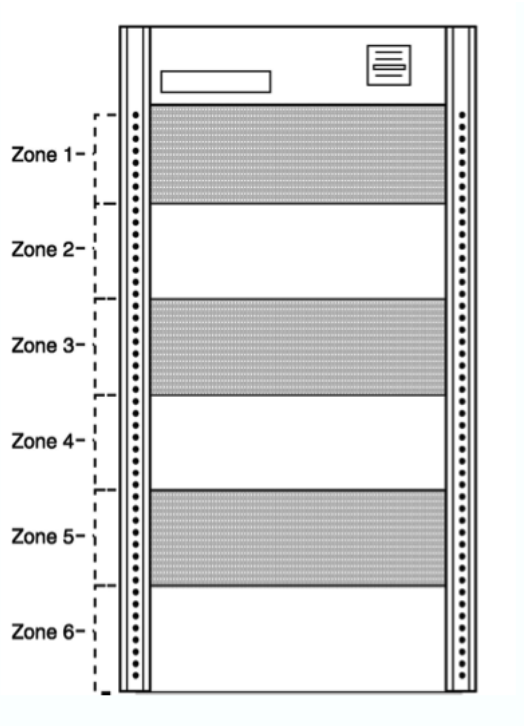
Sensitivity Setting



The Searcharch 1000 can pinpoint the metal target accurately on left / right from toe to head.
Two LED array will pop up together when The centre zones find big metal objects.

The Searcharch 1000 can pinpoint the metal target by six horizontal level LED array.

The BASE SENSITIVITY represent the voltage for the receive coil. The whole 12 sensors sensitivity will determined by the base digit. 9 is the highest. 1 is the lowest. It is recommend to set to 4 for starting.

SUB ZONES including 1 to 6 sensors for programing. Digit 99 means 99% sensitivity been uploaded, is the highest , 1 is the lowest. ADMIN user can adjust them through the SUB SENSE SETTING menu.

Note:
Don't forget to save the sensitivity setting before you exit the menu. You can save it to 1,2 or M three data setting. M is recommend to set to the Most Highest Sensitivity for easy memory.

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ADJUST VOLUME
VOLUME SET <current volume setting>, appears on LCD. The user may use the UP / DOWN touch-pad of Searcharch 1000 to increase or decrease the alarm volume from 0 - 3.
Press P for the next adjustment.

ALARM TIMER
ALARM TIMER 1 will appear on LCD. If user is authorized to change alarm time, the user may use the UP / DOWN touch-pad to adjust the time between 1-SEC to 3-SEC in 1 second increments. The lowest the digit the faster the detection speed the detector will uploaded.
Sets the duration for audible alarms for 1, 2, or 3 seconds .
ALARM TIME: 1-SEC (default), will appear on LCD.
Press P for the next adjustment.

ADDING A USER
Choose "ADD USER" from menu. Press A.
Use UP/DOWN to change the LEVEL <ADMIN, SUPER >, appears on LCD.
Press A to add a desired authorities level code.
Enter UP/DOWN and switch the position to have 4-digit code.
Press A to confirm the code.
Press P for the next adjustment

ALTERING A USER
Choose "DELETE USER" from menu. Press A to access.
ENTER the code of desired and press A to delete it.
Press P for the next adjustment.

Load the initial setting
This function will set all setting to the factory default setting.
Press P for the next adjustment.

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WARRANTY INFORMATION

Searcharch warrants that each piece of security equipment manufactured by Searcharch is protected by the following limited parts and labor warranty for a period of 12 (twenty-four) months (the "Warranty").
During this 12-month period CST will inspect and evaluate all equipment returned to its authorized repair station or factory to determine if the equipment meets CST's performance specifications. CST will repair or replace at no charge to the owner all parts determined faulty. This Warranty does not cover batteries nor any and all failures caused by abuse, tampering, theft, failure due to weather, battery acid or other contaminants and equipment repairs made by an unauthorized party.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
THE BUYER ACKNOWLEDGES THAT ANY OR ALL STATEMENTS ABOUT THE MERCHANDISE DESCRIBED IN THIS CONTRACT MADE BY SELLERS' REPRESENTATIVES, IF ANY SUCH STATEMENTS WERE MADE, DO NOT CONSTITUTE WARRANTIES, SHALL NOT BE RELIED UPON BYTHE BUYER, AND ARE NOT APART OF THIS CONTRACT FOR SALE. THE ENTIRE CONTRACT IS EMBODIED IN THIS WRITING. THIS WRITING CONSTITUTES THE FINALEXPRESSION OF THE PARTIES' AGREEMENT AND IS A COMPLETE AND EXCLUSIVE STATEMENT OF THE TERMS OF THIS AGREEMENT.

Conformity & Safety Statement

Searcharch 1000 walk through metal detectors complies with all European CE recommendations and United States FCC terms 15 safety requirements. Searcharch' s policy of continuously researching improvements for our equipments means that we reserve the right to modify the specifications of our products without prior warning.

The Searcharch 1000 meets U.S. and International regulator y requirements for electromagnetic safety. Extensive research has found no information that would indicate Searcharch products have adverse effects on pregnancy, medical devices or magnetic recording media. However, directives by physicians and medical device manufacturers regarding metal detectors should be followed.

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